

KDR

Recombinant Human VEGFR-2 (D7), soluble

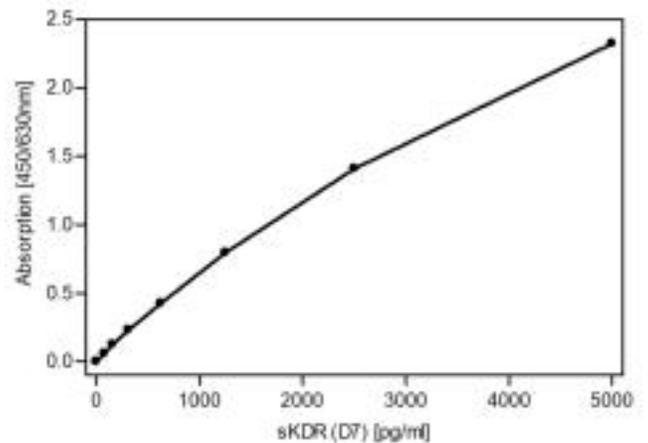
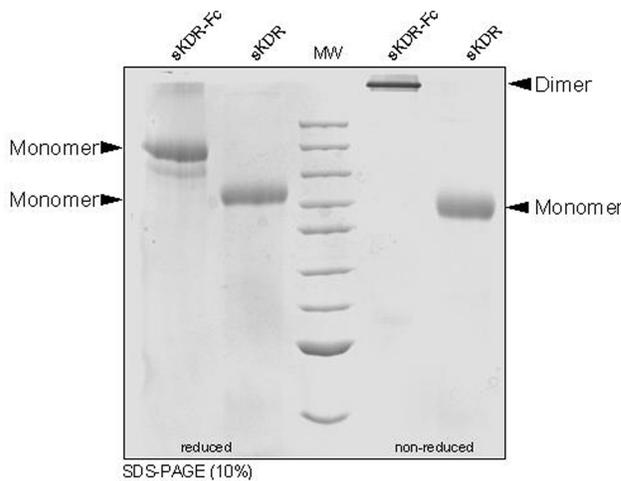
Catalog No.	CRF104A CRF104B CRF104C	Quantity:	5 µg 50 µg 1.0 mg
Alternate Names:	Vascular endothelial growth factor receptor 2, Fetal liver kinase 1, FLK-1, CD309, Kinase insert domain receptor, sKDR		
Description:	<p>Recombinant Human soluble Vascular Endothelial Growth Factor Receptor-2 (sVEGFR-2) is produced as a non-chimeric protein in a monomeric form. The soluble receptor protein consists of all 7 extracellular domains, which contain all the information necessary for high affinity ligand binding. The receptor monomers have a MW = ~116 kDa. Endothelial cells express three different vascular endothelial growth factor (VEGF) receptors, belonging to the family of receptor tyrosine kinases (RTKs). They are named VEGFR-1 (Flt-1), VEGFR-2 (KDR/Flk-1), VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes. All VEGF-receptors have seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. VEGFR-2 has a lower affinity for VEGF than the Flt-1 receptor, but a higher signaling activity. Mitogenic activity in endothelial cells is mainly mediated by VEGFR-2 leading to their proliferation. Differential splicing of the <i>flt-1</i> gene leads to the formation of a secreted, soluble variant of VEGFR-1 (sVEGFR-1). No naturally occurring, secreted forms of VEGFR-2 have so far been reported. The binding of VEGF₁₆₅ to VEGFR-2 is dependent on heparin.</p>		
UniProt ID:	P35968		
Gene ID:	3791		
Source:	Insect cells		
Molecular Weight:	116 kDa (738 aa) monomer		
Formulation:	Lyophilized from 25mM MES, 100mM NaCl; pH 5.5		
Purity:	> 90% by SDS-PAGE and visualized by silver stain		
Endotoxin Level:	< 0.1 ng/µg		
Biological Activity:	Measured by its ability to inhibit the VEGF ₁₆₅ -induced proliferation in human umbilical vein endothelial (HUVE) cells.		
Reconstitution:	Centrifuge vial prior to opening. The lyophilized product is soluble in water and most aqueous buffers. Reconstituted in water or PBS to a concentration of ≥ 0.1 mg/ml.		
Storage & Stability:	Store as supplied for up to 1 year at -20°C to -80°C. Following reconstitution, prepare working aliquots and store at -20°C to -80°C. Avoid repeated freeze-thaw cycles. Store at 2-8°C for only up to 2 days.		



Amino Acid Sequence: ASVGLPSVSLDLPRLSIQKDILTIKANTTLQITCRGQRDLDWLWPNNQSGSEQRVEVTEC
 SDGLFCKTLTIPKVIGNDTGAYKCFYRETDLASVIYVVYVQDYRSPFIASVSDQHGVVYITE
 NKNKTVIPCLGSISNLNVSLCARYPEKRFVPDGNRISWDSKKGFTIPSYMISYAGMVFC
 EAKINDESYQSIMYIVVVVGYRIYDVVLSPSHGIELSVGEKLVLNCTARTELVGIDFNWE
 YPSSKHQHKLVNRDLKTQSGSEMKKFLSTLTIDGVTRSDQGLYTCAASSGLMTKKNST
 FVRVHEKPFVAFGSGMESLVEATVGERVRIPAKYLGYPPEIKWYKNGIPLESNHTIKAG
 HVLTIMEVSRDTGNYTVILTNPISKEKQSHVVSLVYVPPQIGEKSLISPVDSYQYGTQ
 TLTCTVYAIPPPHHIHWYWQLEEECANEPSQAVSVTNPYPCEEWRSVEDFQGGNKIEV
 NKNQFALIEGKNKTVSTLVIQAANVSALYKCEAVNKVGRGERVISFHVTRGPEITLQPD
 MPTEQESVSLWCTADRSTFENLTWYKLGPPQPLPIHVGEPTPVCKNLDLWKLNATMF
 SNSTNDILIMELKNASLQDQGDYVCLAQDRKTKKRHCVVRQLTVLERVAPTITGNLENQ
 TTSIGESIEVSCTASGNPPQIMWFKDNETLVEDSGIVLKDGNRNLTIKRRVKEDEGLY
 TQACSVLGCCKVEAFFIIEGA

SDS-PAGE (10%) analysis of recombinant soluble KDR (D7) and sKDR(D7)-Fc derived from Sf9 cells under reducing and non-reducing conditions, followed by silver stain. **Note: sKDR(D7)-Fc forms dimers, sKDR(D7) does not.**

VEGFR-2/KDR Sandwich-ELISA using soluble KDR (D7) as standard. Mouse anti-human VEGFR-2 was used as capture antibody, Biotinylated rabbit anti-human VEGFR-2 was used for detection.



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.